

Title: Imaging Spectrometric Observatory: ISO

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Short Description: The objectives of this instrument are to measure the spectral signatures of a large range of minor constituents, metastable, and excited species of both atomic and molecular ions, and neutrals in the atmosphere (from the stratosphere to the upper thermosphere). The instrument is composed of five identical spectrometers, each restricted to a given spectral range between 20 and 1200 nanometers designed for high speed operation as an imaging device. Each module is an imaging scanning spectrometer with coincident 0.5x0.007 degree field-of-view.

Instrument Characteristics:

Mass: 250 kgm  
Volume: 1 cubic meter  
Power: .2 kW  
Data rate: 2.0 Mbs peak, 125 Kbs average

General Comments:

Heritage is from Spacelab I flown in 1983 with reflights scheduled on Earth Observation Missions (1986, 1988). Instrument is presently fixed-mounted with pointing at nadir or limb using mirror system. Future flights desire mounting on a pointing system. Instrument should be mounted to provide a clear field-of-view from Earth nadir to limb.

Source of Information: ISO fact sheet

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